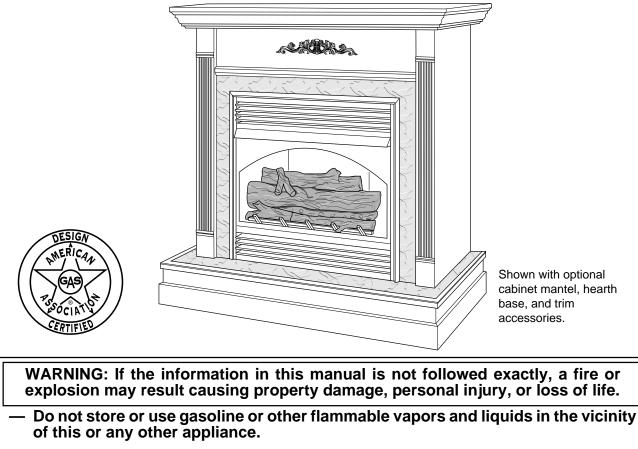
# DESA INTERNATIONAL UNVENTED (VENT-FREE) PROPANE GAS FIREPLACE OWNER'S OPERATION AND INSTALLATION MANUAL

**Manually Controlled** 



- WHAT TO DO IF YOU SMELL GAS
  - Do not try to light any appliance.
  - Do not touch any electrical switch; do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

WARNING: This is an unvented gas-fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to the *Air for Combustion and Ventilation* section in this manual.

Save this manual for future reference.

# CONTENTS

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### PAGE

Safety Information	2
Product Identification	4
Local Codes	5
Unpacking	5
Product Features	5
Air for Combustion and Ventilation	6
Installing	9
Check Gas Type	9
Assembling and Attaching Brass Trim	10
Installation Clearances	11
Conventional Fireplace Installation	11
Built-In Fireplace Installation	13
Installing Gas Piping to Fireplace Location	15
Connecting Fireplace to Gas Supply	17
Checking Gas Connections	18
Installing Logs	20
Operating Fireplace	22
Inspecting Burners	25
Cleaning and Maintenance	26
Troubleshooting	26
Technical Service	30
Service Hints	30
Replacement Parts	31
Specifications	31
Wiring Diagram	31
Accessories	32
Illustrated Parts Lists	34-37
Warranty Information	Back Cover

# SAFETY INFORMATION

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IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate, or service this fireplace. Improper use of this fireplace can cause serious injury or death from burns, fire, explosion, electrical shock, and carbon monoxide poisoning.



**Carbon Monoxide Poisoning:** Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness, or nausea. If you have these signs, the fireplace may not be working properly. **Get fresh air at once!** Have fireplace serviced. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.

**Propane Gas**: Propane gas is odorless. An odor-making agent is added to the gas. The odor helps you detect a gas leak. However, the odor added to the gas can fade. Gas may be present even though no odor exists.

Make certain you read and understand all Warnings. Keep this manual for reference. It is your guide to safe and proper operation of this fireplace.

Safety Information continues on next page

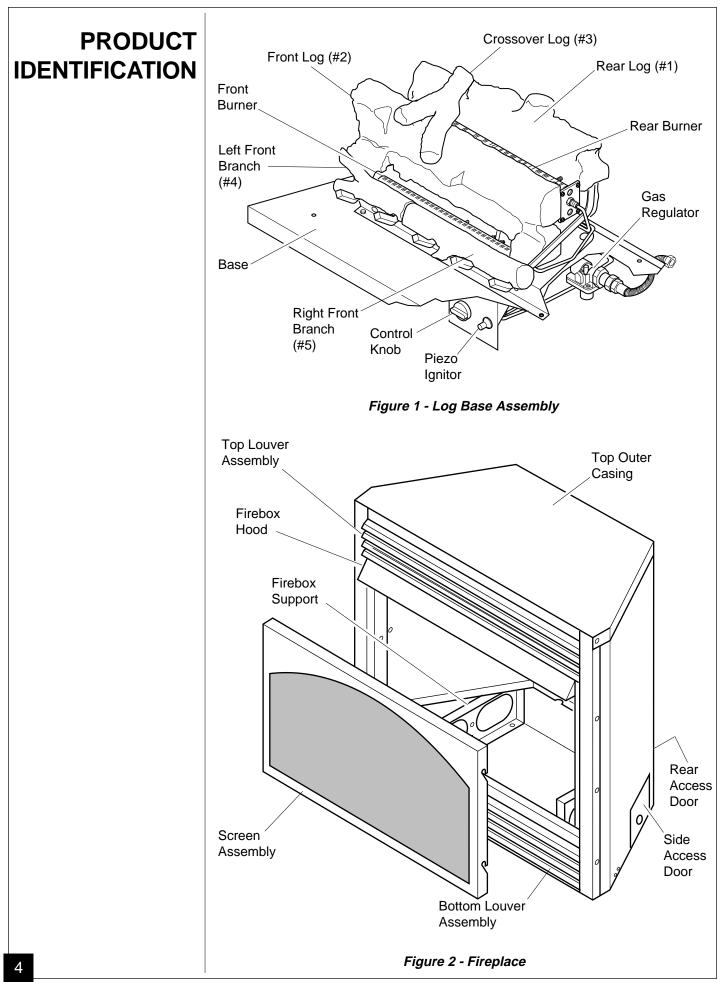
# SAFETY INFORMATION

### Continued

A WARNINGS Continued

**WARNING:** Any change to this fireplace or its controls can be dangerous.

- 1. Use only propane gas. Do not convert fireplace to use different fuel type.
- 2. Do not place propane supply tank(s) inside any structure. Locate propane supply tank(s) outdoors.
- 3. If you smell gas
  - shut off gas supply
  - do not try to light any appliance
  - do not touch any electrical switch; do not use any phone in your building
  - immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions
  - if you cannot reach your gas supplier, call the fire department
- 4. This fireplace shall not be installed in a bedroom or bathroom.
- 5. Never install the fireplace
  - in a recreational vehicle
  - where curtains, furniture, clothing, or other flammable objects are less than 36 inches from the front, top, or sides of the fireplace
  - in high traffic areas
  - in windy or drafty areas
- 6. Do not use this fireplace as a wood-burning fireplace. Use only the logs provided with the fireplace.
- 7. Do not add extra logs or ornaments such as pine cones, vermiculite, or rock wool. Using these added items can cause sooting. Do not add lava rock around base. Rock and debris could fall into the control area of fireplace.
- 8. You must operate this fireplace with the fireplace screen in place. Make sure fireplace screen is in place before running fireplace.
- 9. This fireplace is designed to be smokeless. If logs ever appear to smoke, turn off fireplace and call a qualified service person. *Note:* During initial operation, slight smoking may occur due to log curing and fireplace burning manufacturing residues.
- 10. Avoid any drafts that alter burner flame patterns. Do not allow fans to blow directly into fireplace. Do not place a blower inside burn area of firebox. Ceiling fans may create drafts that alter burner flame patterns. Sooting and improper burning will occur. Sooting can settle on household surfaces outside the fireplace.
- 11. This fireplace needs fresh air ventilation to run properly. This fireplace has an oxygen depletion sensor (ODS) pilot light safety system. The ODS shuts down the fireplace if not enough fresh air is available. See *Air for Combustion and Ventila-tion*, pages 6 through 8. If fireplace keeps shutting off, see *Troubleshooting*, pages 26 through 30.
- 12. Do not run fireplace
  - where flammable liquids or vapors are used or stored
  - under dusty conditions
- 13. Do not use this fireplace to cook food or burn paper or other objects.
- 14. Never place any objects in the fireplace or on logs.
- 15. Fireplace front and screen becomes very hot when running fireplace. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Fireplace will remain hot for a time after shut-down. Allow surfaces to cool before touching.
- 16. Carefully supervise young children when they are in the room with fireplace.
- 17. Do not use fireplace if any part has been exposed to or under water. Immediately call a qualified service technician to inspect the fireplace and to replace any part of the control system and any gas control which has been under water.
- 18. Do not operate fireplace if any log is broken. Do not operate fireplace if a log is chipped (dime-sized or larger).
- 19. Turn fireplace off and let cool before servicing. Only a qualified service person should service and repair fireplace.
- 20. Operating fireplace above elevations of 4,500 feet may cause pilot outage.



LOCAL CODES	Install and use fireplace with care. Follow all local codes. In the absence of local codes, use the latest edition of The National Fuel Gas Code ANSI Z223, also known as NFPA 54*. *Available from: American National Standards Institute, Inc. 1430 Broadway New York, NY 10018 National Fire Protection Association, Inc. Batterymarch Park Quincy, MA 02269
UNPACKING	<ol> <li>Remove trim kit and cartons containing logs from carton. Place the carton containing the fireplace unit on its back. Hold fireplace and pull the carton and pallet away.</li> <li>Remove protective packaging applied to logs, log base assembly, and fireplace. You may not want to remove protective plastic on front of fireplace until after installing. This will protect fireplace from dust, debris, and damage during installation.</li> <li>Check all items for any shipping damage. If damaged, promptly inform dealer where you bought fireplace.</li> </ol>
PRODUCT FEATURES	<ul> <li>Operation This vent-free fireplace is clean burning. It requires no outside venting. There is no heat loss out a vent or up a chimney. Heat is generated by both realistic flames and glowing embers. The fireplace requires no electricity making it ideal for emergency back-up heat. </li> <li>Safety Device This fireplace has a pilot with an Oxygen Depletion Sensor Shutoff System (ODS). The ODS/pilot is a required feature for vent-free room heaters. The ODS system shuts off the fireplace if there is not enough fresh air. Piezo Ignition System This fireplace has a piezo ignitor. This system requires no matches, batteries, or other sources to light fireplace. Manual Control This fireplace has a manual control valve which allows the user to choose the heat setting that best suits his needs. The low, medium, or high setting may be selected by simply turning the control knob.</li></ul>

# AIR FOR COMBUSTION AND VENTILATION

# **WARNING**

This fireplace must have fresh air for proper operation. If not, poor fuel combustion could result. Read the following instructions to insure proper fresh air for this and other fuel-burning appliances in your home.

Today's homes are built more energy efficient than ever. New materials, increased insulation, and new construction methods help reduce heat loss in homes. Home owners weather strip and caulk around windows and doors to keep the cold air out and the warm air in. During heating months, home owners want their homes as airtight as possible.

While it is good to make your home energy efficient, your home needs to breathe. Fresh air must enter your home. Fresh air enters the home through and around doors and windows. This may provide enough fresh air for combustion and ventilation. All fuel-burning appliances need fresh air for proper combustion and ventilation.

Exhaust fans, fireplaces, clothes dryers, and fuel burning appliances draw air from the house to operate. You must provide adequate fresh air for these appliances. This will insure proper venting of vented fuel-burning appliances.

### **PROVIDING ADEQUATE VENTILATION**

The following are excerpts from the *National Fuel Gas Code NFPA 54/ANSI Z223.1*, *Section 5.3, Air for Combustion and Ventilation.* 

All spaces in homes fall into one of the three following ventilation classifications: 1. Unusually Tight Construction; 2. Unconfined Space; 3. Confined Space.

The information on pages 6 through 8 will help you classify your space and provide adequate ventilation.

### **Unusually Tight Construction**

The air that leaks around doors and windows may provide enough fresh air for combustion and ventilation. However, in buildings of unusually tight construction, you must provide additional fresh air.

Unusually tight construction is defined as construction where:

- a. walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of one perm or less with openings gasketed or sealed <u>and</u>
- b. weather stripping has been added on openable windows and doors and
- c. caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical, and gas lines, and at other openings.

If your home meets all of the three criteria above, you must provide additional fresh air. See *Ventilation Air From Outdoors*, page 8.

If your home does not meet all of the three criteria above, proceed to page 7.

### **Unconfined Space**

An unconfined space has a minimum air volume of 50 cubic feet for each 1000 Btu/ Hr input rating of all appliances in the space (cubic feet equals length x width x height of space). Include adjoining rooms only if there are doorless passageways or ventilation grills between the rooms.

If the Btu per 50 cubic feet is less than 1000 Btu/Hr, then the fresh air will be provided by the natural air flow into the house.

### **Confined Space**

A confined space has an air volume of less than 50 cubic feet for each 1000 Btu/Hr input rating of all appliances in the space (cubic feet equals length x width x height of space). Include adjoining rooms only if there are doorless passageways or ventilation grills between the rooms.

# AIR FOR COMBUSTION AND VENTILATION

Continued

### DETERMINING AIR FLOW FOR FIREPLACE LOCATION

### Determining if You Have a Confined or Unconfined Space

Use this work sheet to determine if you have a confined or unconfined space.

**Space:** Includes the room in which you will install fireplace plus any adjoining rooms with doorless passageways or ventilation grills between the rooms.

1. Determine the volume of the space (length x width x height).

Length x Width x Height = \_\_\_\_\_ cu. ft. (volume of space) *Example:* Space size 22 ft. (length) x 18 ft. (width) x 8 ft. (ceiling height) = 3168 cu. ft. (volume of space)

If additional ventilation to adjoining room is supplied with grills or openings, add the volume of these rooms to the total volume of the space.

2. Divide the space volume by 50 cubic feet to determine the maximum Btu/Hr the space can support.

\_\_\_\_\_ (volume of space)  $\div$  50 cu. ft. = (Maximum Btu/Hr the space can support)

- *Example:* 3168 cu. ft. (volume of space) ÷ 50 cu. ft. = 63.3 or 63,300 (maximum Btu/Hr the space can support)
- 3. Add the Btu/Hr of all fuel burning appliances in the space.

	Vent-free fireplace Gas water heater* Gas furnace Vented gas heater Gas fireplace logs Other gas appliances* Total	- - - - + _ =		Btu/Hr Btu/Hr Btu/Hr Btu/Hr Btu/Hr Btu/Hr Btu/Hr
Example:	Gas water heater Vent-free fireplace Total	+ =	40,000 28,000 68,000	Btu/Hr Btu/Hr Btu/Hr

\* Do not include direct-vent gas appliances. Direct-vent draws combustion air from the outdoors and vents to the outdoors.

4. Compare the maximum Btu/Hr the space can support with the actual amount of Btu/Hr used.

		Btu/Hr (maximum the space can support) Btu/Hr (actual amount of Btu/Hr used)
Example:	63,300 68.000	Btu/Hr (maximum the space can support) Btu/Hr (actual amount of Btu/Hr used)

The space in the above example is a confined space because the actual Btu/Hr used is more than the maximum Btu/Hr the space can support. You must provide additional fresh air. Your options are as follows:

- A. Rework work sheet, adding the space of an adjoining room. If the extra space provides an unconfined space, remove door to adjoining room or add ventilation grills between rooms. See *Ventilation Air from Inside Building*, page 8.
- B. Vent room directly to the outdoors. See Ventilation Air from Outdoors, page 8.
- C. Install a lower Btu/Hr fireplace, if lower Btu/Hr size makes room unconfined.

If the actual Btu/Hr used is less than the maximum Btu/Hr the space can support, the space is an unconfined space. You will need no additional fresh air ventilation.

# 

You must provide additional ventilation air in a confined space.

# AIR FOR COMBUSTION AND VENTILATION Continued

### **VENTILATION AIR**

### Ventilation Air from Inside Building

This fresh air would come from an adjoining unconfined space. When ventilating to an adjoining unconfined space, you must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor on the wall connecting the two spaces (see options 1 and 2, Figure 3). Follow the *National Fuel Gas Code NFPA 54/ANSI Z223.1, Section 5.3, Air for Combustion and Ventilation* for required size of ventilation grills or ducts. You can also remove door into adjoining room (see option 3, Figure 3).

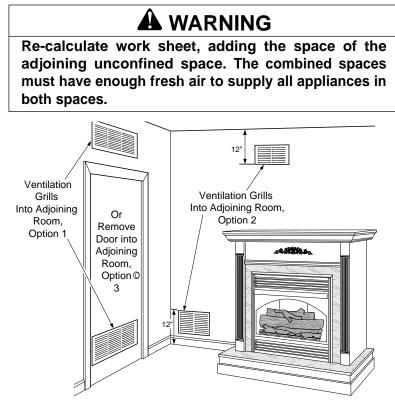
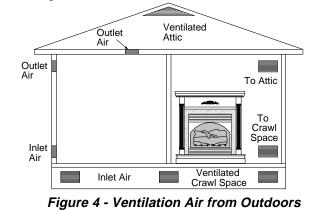


Figure 3 - Ventilation Air from Inside Building

### **Ventilation Air from Outdoors**

Provide extra fresh air by using ventilation grills or ducts. You must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor. Connect these items directly to the outdoors or spaces open to the outdoors. These spaces include attics and crawl spaces. Follow the *National Fuel Gas Code NFPA 54/ ANSI Z223.1, Section 5.3, Air for Combustion and Ventilation* for required size of ventilation grills or ducts. *IMPORTANT:* Do not provide openings for inlet or outlet air into attic if attic has a thermostat-controlled power vent. Heated air entering the attic will activate the power vent.



# NOTICE

A qualified service person must install fireplace. Follow all local codes.

# 

- Never install the fireplace
  - in a bedroom or bathroom
  - in a recreational vehicle
  - where curtains, furniture, clothing, or other flammable objects are less than 36 inches from the front, top, or sides of the fireplace
  - in high traffic areas
  - in windy or drafty areas

# 

This fireplace creates warm air currents. These currents move heat to wall surfaces next to fireplace. Installing fireplace next to vinyl or cloth wall coverings or operating fireplace where impurities in the air (such as tobacco smoke) exist, may discolor walls.

*IMPORTANT:* Vent-free heaters add moisture to the air. Although this is beneficial, installing fireplace in rooms without enough ventilation air may cause mildew to form from too much moisture. See *Air for Combustion and Ventilation*, pages 6 through 8.

*IMPORTANT:* Make sure the fireplace is level. If fireplace is not level, log set will not work properly.

### CHECK GAS TYPE

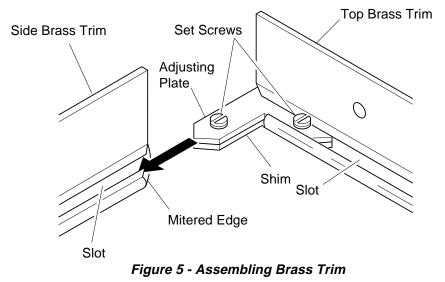
Use only propane gas. If your gas supply is not propane gas, do not install fireplace. Call dealer where you bought fireplace for proper type fireplace.

Continued

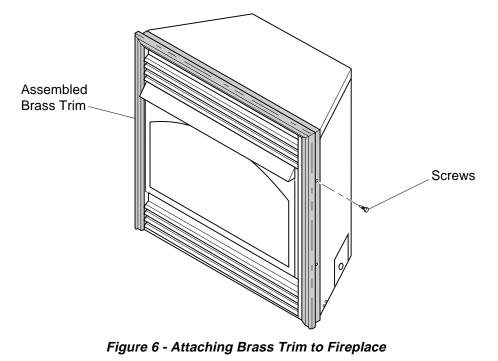
### ASSEMBLING AND ATTACHING BRASS TRIM

*Note:* The instructions below show assembling and attaching brass trim to fireplace. You cannot attach the brass trim as described below for built-in installation (see page 13).

- 1. Remove packaging from three pieces of brass trim.
- 2. Locate four brass screws, two adjusting plates with set screws, and two shims in the hardware packet.
- 3. Align shim under adjusting plate as shown in Figure 5.
- 4. Slide one end of adjusting plate/shim in slot on mitered edge of top brass trim (see Figure 5).
- 5. Slide other end of adjusting plate/shim in slot on mitered edge of side brass trim (see Figure 5).
- 6. While firmly holding edges of brass trim together, tighten both set screws on the adjusting plate with slotted screwdriver.
- 7. Repeat steps 1 through 6 for other side.



8. Place the assembled trim onto fireplace cabinet. Attach to fireplace with brass screws included in hardware package (see Figure 6).



Continued

### INSTALLATION CLEARANCES

# 

Maintain the minimum clearances. If you can, provide greater clearances from floor, ceiling, and adjoining wall.

Carefully follow the instructions below. This will ensure safe installation.

### Minimum Wall and Ceiling Clearances (see Figure 7)

- A. Clearances from the side of the fireplace opening to any combustible wall should not be less than 16 inches for a standard mantel or 12 inches for a corner installation.
- B. Clearances from the top of the fireplace opening to the ceiling should not be less than 42 inches.

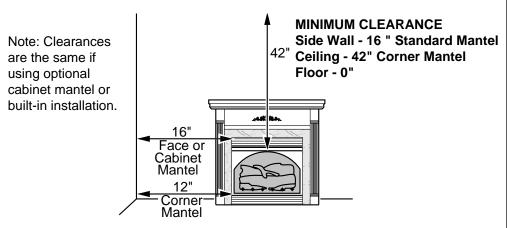


Figure 7 - Minimum Clearance to Wall and Ceiling

### CONVENTIONAL FIREPLACE INSTALLATION

Conventional installation of this fireplace involves installing fireplace along with the corner mantel accessory or cabinet mantel with hearth base accessories against a wall in your home. Follow the instructions below to install the fireplace in this manner.

# **WARNING**

For conventional installation, it is recommended you use the cabinet mantel, corner mantel, or hearth base specified in this manual. Surface clearances may not be sufficient with other cabinet mantels and hearth bases. This may create a fire hazard. See *Accessories,* pages 32 and 33 for correct cabinet mantel and hearth base.

*Note:* The instructions below show installation using the cabinet mantel and the G3000F/G3001U hearth base accessories. The hearth base accessory shown is optional for this installation. You can install fireplace and cabinet mantel directly on the floor. The corner mantel and face mantel accessories cannot be installed with the G3000F/G3001U hearth base. You must install corner mantel directly on the floor. If mounting fireplace to floor or using face mantel or corner mantel, an optional G3005 Slim Base kit may be installed.

1. Assemble cabinet mantel, hearth base, and trim accessories. Assembly instructions are included with each accessory.

*Continued* 11

### Continued

- 2. Install gas piping to fireplace location. This installation includes an approved flexible gas line (if allowed by local codes) after the manual shutoff valve. The flexible gas line must be the last item installed on the gas piping. See *Installing Gas Piping to Fireplace Location*, page 15.
- 3. Place hearth base accessory against wall at installation location. Cut an access hole in hearth top to run flexible gas line to fireplace (see Figure 8). Make sure to locate access hole so cabinet mantel will cover it when installed. *Note:* You can secure base to floor using wood screws. Countersink screw heads and putty over.

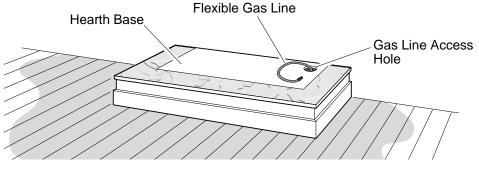


Figure 8 - Placing Hearth Base Accessory Against Wall

- 4. Route flexible gas line through access hole in hearth base.
- 5. Center cabinet mantel on hearth base (see Figure 9). Make sure mantel is flush against wall.

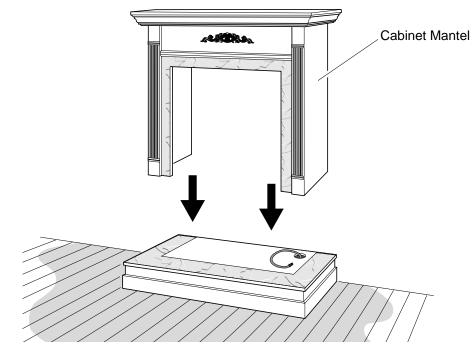


Figure 9 - Installing Cabinet Mantel

- 6. Place cardboard or other protective material on top of hearth base. Carefully set fireplace on protective material, with back of fireplace inside mantel opening.
- 7. Attach flexible gas line to fireplace gas regulator. See *Connecting Fireplace to Gas Supply*, page 17.
- 8. Carefully insert fireplace into cabinet mantel. Be careful not to scratch or damage hearth base, cabinet mantel, or any laminate trim on hearth base. Remove protective material from top of hearth base and from front of fireplace (if any). *Note:* You can secure fireplace to hearth or floor. Open lower louver. Locate screw holes in bottom of base. Tighten wood screws through these holes and into hearth or floor.

### Continued

9. Check all gas connections for leaks. See *Checking Gas Connections*, page 18.

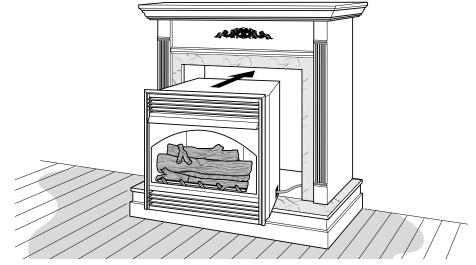


Figure 10 - Inserting Fireplace Into Cabinet Mantel

### BUILT-IN FIREPLACE INSTALLATION

Built-in installation of this fireplace involves installing fireplace into a framed-in enclosure. This makes the front of fireplace flush with wall. If installing a mantel above the fireplace, but you must follow the clearances shown in Figure 15, page 15. Follow the instructions below to install the fireplace in this manner.

Hei	ght	Front \	Nidth	Dep	oth
Actual	Framing	Actual	Framing	Actual	Framing
32 <sup>3</sup> / <sub>8</sub> "	33"	34 <sup>5</sup> / <sub>16</sub> "	35 <sup>1</sup> / <sub>2</sub> "	16 <sup>11</sup> / <sub>16</sub> "	17 <sup>3</sup> / <sub>4</sub> "

1. Frame in rough opening. Use dimensions shown in Figure 11 for the rough opening.

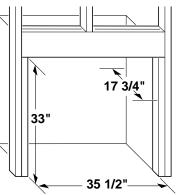


Figure 11 - Rough Opening for Installing in Wall

If installing in a corner, use dimensions shown in Figure 12 for the rough opening. The height is 33" which is the same as the wall opening, above.

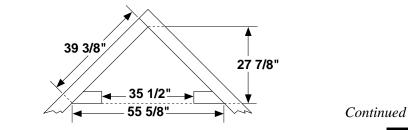
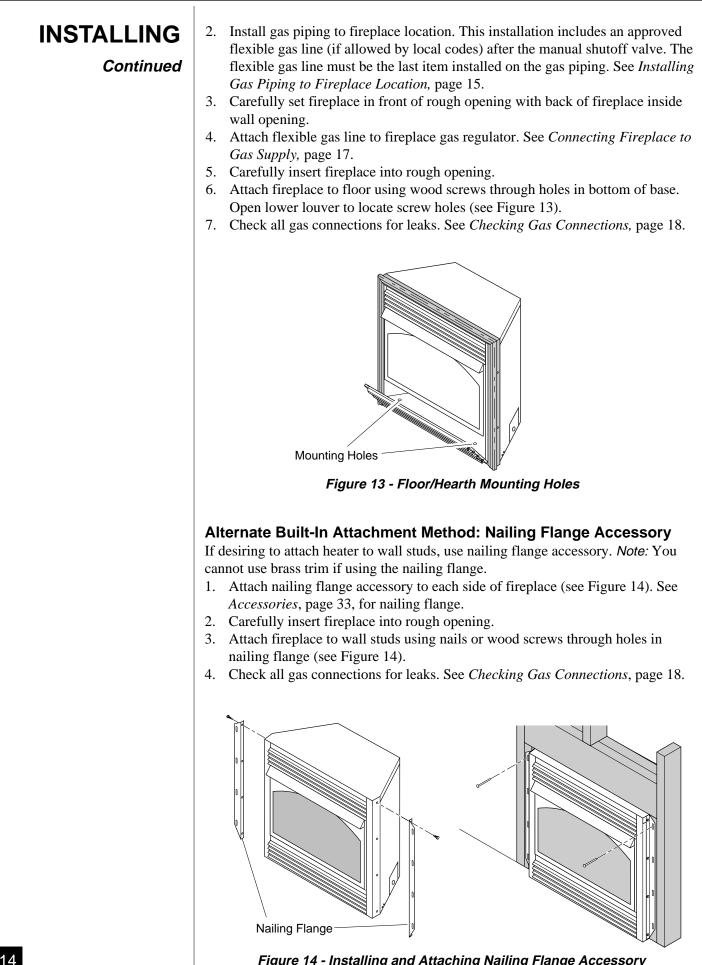


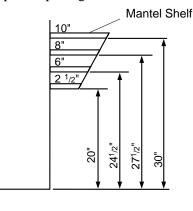
Figure 12 - Rough Opening for Installing in Corner



Continued

### Mantel Clearances for Built-In Installation

If placing mantel above built-in fireplace, you must meet minimum clearance between mantel shelf and top of fireplace opening.





### Figure 15 - Minimum Mantel Clearances for Built-In Installation

If your installation does not meet the above minimum clearances, you must:

- raise the mantel to an acceptable height, OR
- remove the mantel.

### INSTALLING GAS PIPING TO FIREPLACE LOCATION

### NOTICE

A qualified service person must connect fireplace to gas supply. Follow all local codes.

# 

Never connect heater directly to the propane supply. This heater requires an external regulator (not supplied). Install the external regulator between the heater and propane supply.

### Installation Items Needed

Before installing fireplace, make sure you have the items listed below.

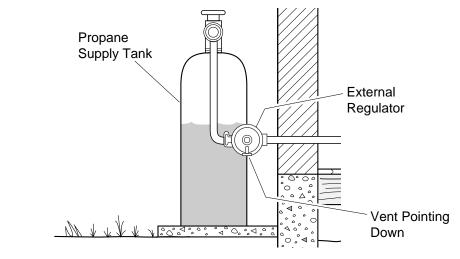
- external regulator (supplied by installer, see Figure 16, page 16)
- piping (check local codes)
- sealant (resistant to propane gas)
- manual shutoff valve \*
- test gauge connection \*

- sediment trap
- tee joint
- pipe wrench
- approved flexible gas line with gas connector (if allowed by local codes) (not provided)

\* An A.G.A. design-certified manual shutoff valve with 1/8" NPT tap is an acceptable alternative to test gauge connection. Purchase the optional A.G.A. design-certified manual shutoff valve from your dealer. See *Accessories*, page 32.

### Continued

The installer must supply an external regulator. The external regulator will reduce incoming gas pressure. You must reduce incoming gas pressure to between 11 and 14 inches of water. If you do not reduce incoming gas pressure, heater regulator damage could occur. Install external regulator with the vent pointing down as shown in Figure 16. Pointing the vent down protects it from freezing rain or sleet.







Use only new, black iron or steel pipe. Internallytinned copper tubing may be used in certain areas. Check your local codes. Use pipe of 1/2" diameter or greater to allow proper gas volume to fireplace. If pipe is too small, undue loss of pressure will occur.

Installation must include a manual shutoff valve, union, and plugged 1/8" NPT tap. Locate NPT tap within reach for test gauge hook up. NPT tap must be upstream from fireplace (see Figure 17, page 17).

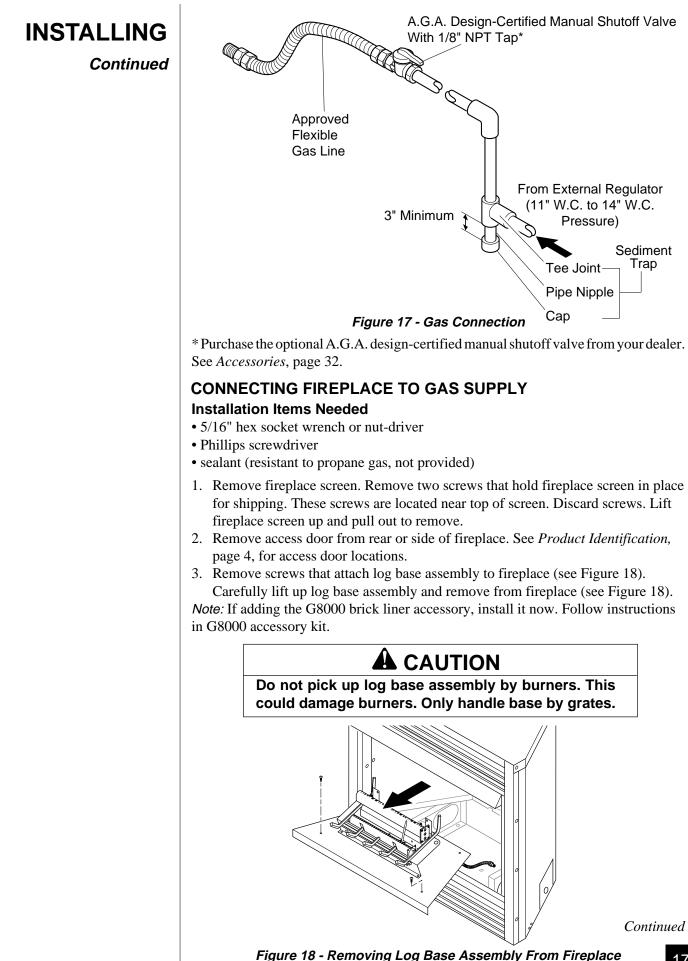
Check your building codes for any special requirements for locating manual shutoff valve to fireplaces.

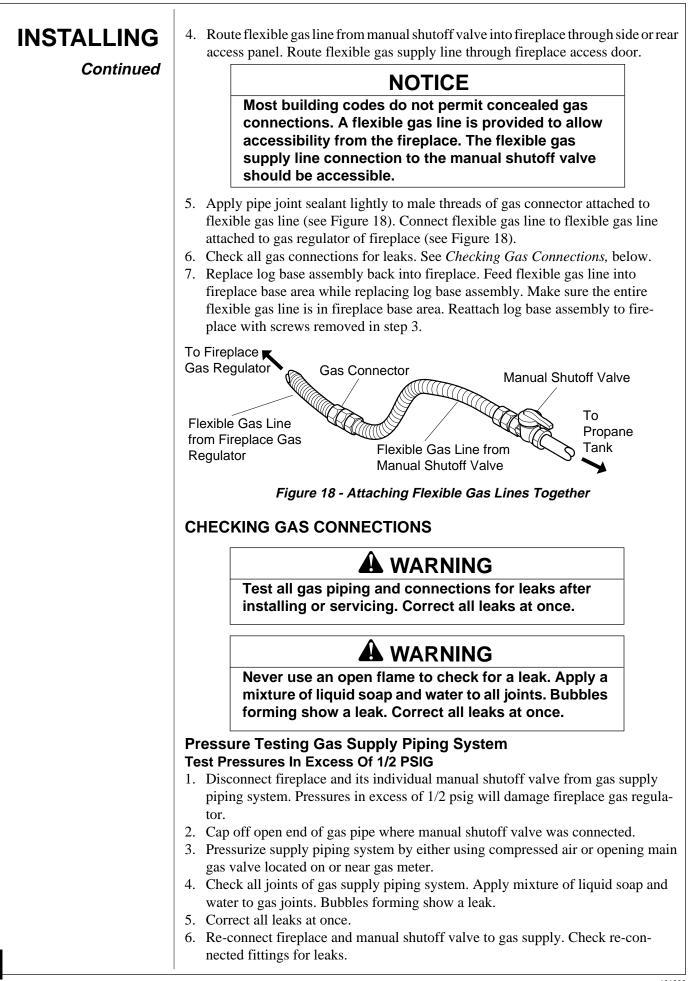
Apply pipe joint sealant lightly to male threads. This will prevent excess sealant from going into pipe. Excess sealant in pipe could result in clogged fireplace valves.

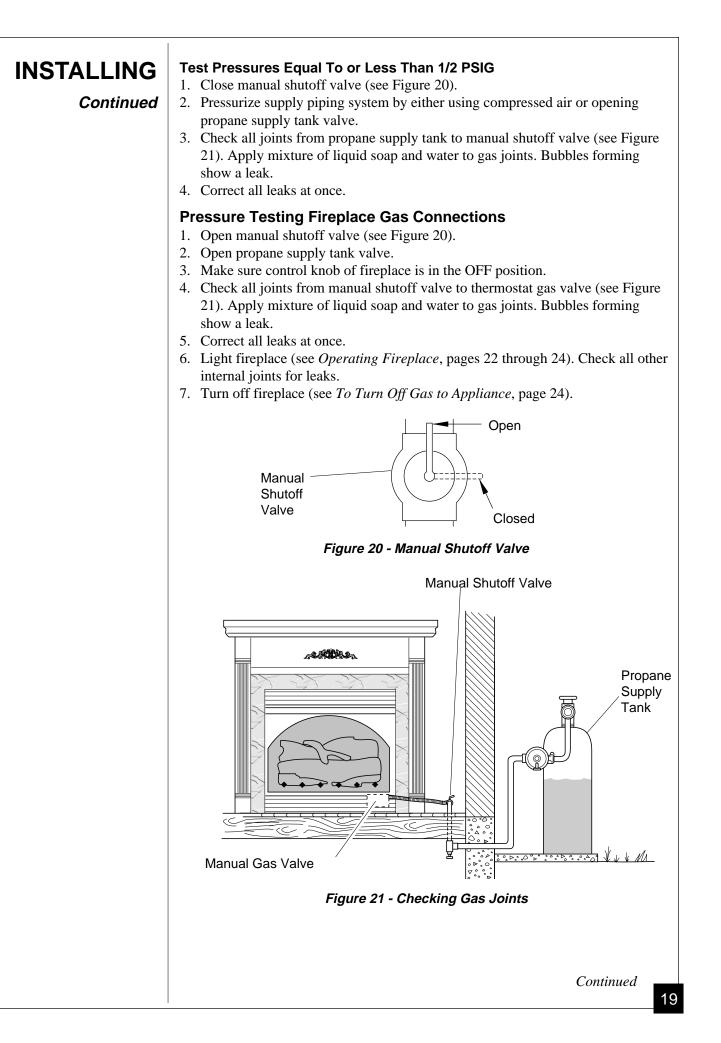
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Use pipe joint sealant that is resistant to liquid petroleum (LP) gas.

Install sediment trap in supply line as shown in Figure 17, page 17. Locate sediment trap where it is within reach for cleaning. Locate sediment trap where trapped matter is not likely to freeze. A sediment trap traps moisture and contaminants. This keeps them from going into fireplace gas controls. If sediment trap is not installed or is installed wrong, fireplace may not run properly.







### Continued

### **INSTALLING LOGS**

# 

Do not add extra logs or ornaments such as pine cones, vermiculite, or rock wool. Using these added items can cause sooting.

Do not add lava rock around base. Rock and debris could fall into the control area of fireplace.

Each log is marked with a number. These numbers will help you identify the log when installing. It is very important to install these logs exactly as instructed. Do not modify logs. Only use logs supplied with fireplace.

1. Slide rear log (#1) into place behind rear burner (see Figure 22).

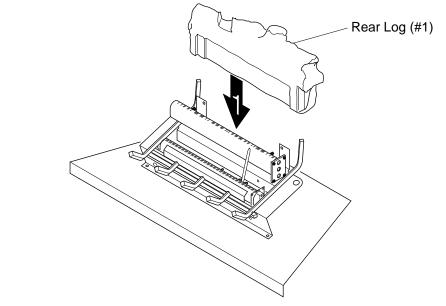
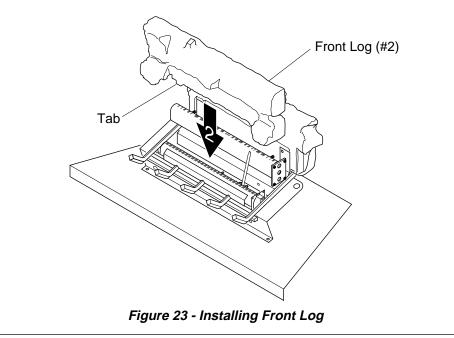


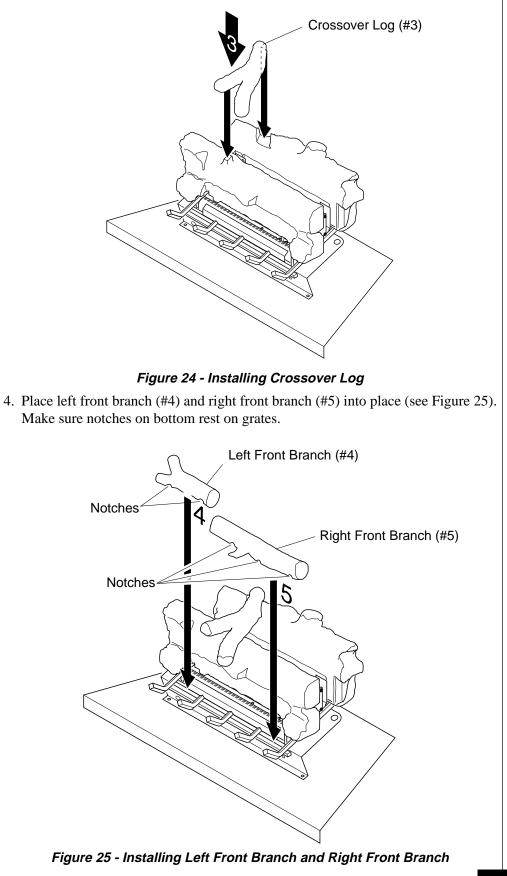
Figure 22 - Installing Rear Log

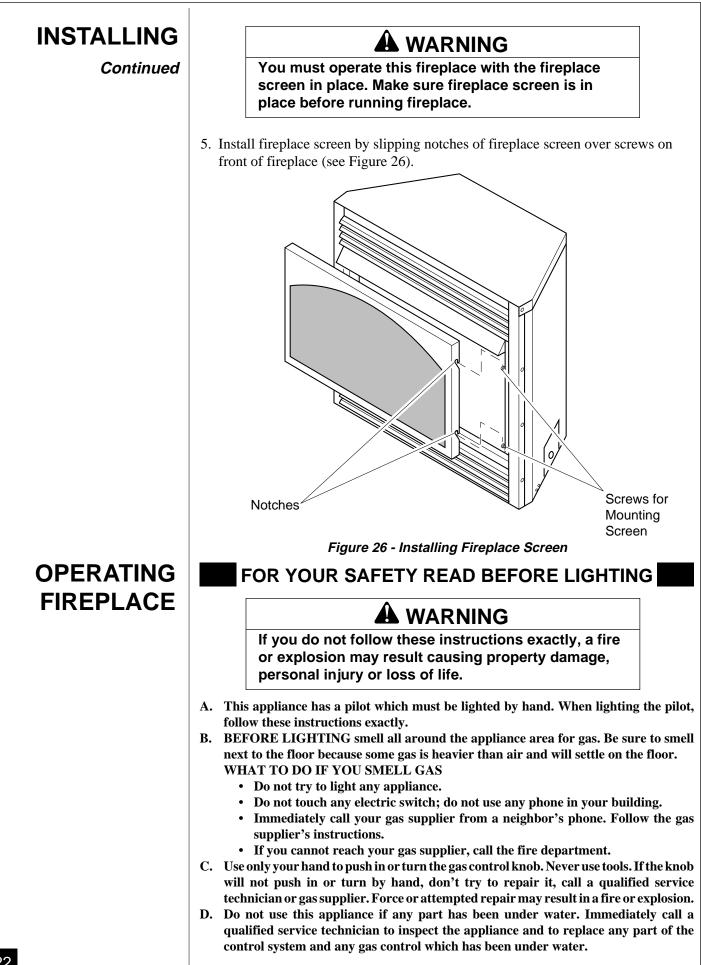
2. Slide front log (#2) into place behind front burner. Make sure tabs at bottom of log are behind front burner (see Figure 23).



### Continued

3. Place crossover log (#3) into place (see Figure 24). Be sure to place back of crossover log into notch on left side of rear log. The indentation under front left fork of crossover log must rest on rectangular knob of front log.





# OPERATING FIREPLACE

Continued

# LIGHTING INSTRUCTIONS

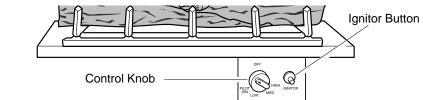
# 

You must operate this fireplace with the fireplace screen in place. Make sure fireplace screen is installed before running fireplace.

# NOTICE

During initial operation of new fireplace, burning logs will give off a paper-burning smell. Orange flame will also be present. Open window to vent smell. Operate fireplace on HI position to burn off odor. This will only last a few hours.

- 1. STOP! Read the safety information on page 22.
- 2. Make sure manual shutoff valve is fully open.



### Figure 27 - Control Knob and Ignitor Button Location

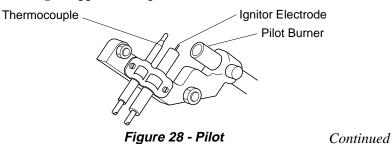
- 4. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information above. If you don't smell gas, go to the next step.
- 5. Turn control knob counterclockwise to the PILOT position. Press in control knob for five (5) seconds (see Figure 27, above).
   *Note:* If running fireplace for first time, there will be air in gas line. You may need to press in control knob for 30 seconds or longer. This will allow air to bleed from the gas system.
- 6. Continue pressing control knob in. Press and release ignitor button. This will light pilot. The pilot is attached to the front burner. If needed, keep pressing ignitor button until pilot lights.

*Note:* If pilot does not stay lit, contact a qualified service person or gas supplier for repairs. Until repairs are made, light pilot with match. To light pilot with match, see *Manual Lighting Procedure*, page 24.

7. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob.

*Note:* If pilot goes out, repeat steps 3 through 7. This fireplace has a safety interlock system. Wait one (1) minute for system to reset before lighting pilot again.

• If control knob does not pop out when released, contact a qualified service person or gas supplier for repairs.



# OPERATING FIREPLACE

Continued

8. Turn control knob counterclockwise to the LOW position. The front burner should light. Set control knob to either HIGH, MEDIUM, or LOW. To turn control knob from LOW to a higher setting, press in the control knob and turn counterclockwise . On LOW and MEDIUM positions, only front burner operates. On HIGH position, front and rear burner operates.

# A WARNING

HIGH, MEDIUM, and LOW are locked positions. You must press in control knob before turning it from these positions. Do not operate heater between locked positions or sooting could occur.

# 

Do not try to adjust heating levels by using the manual shutoff valve.

# TO TURN OFF GAS TO APPLIANCE

### **Shutting Off Fireplace**

- 1. Press in and turn control knob clockwise *to the PILOT position.* 
  - **A** to the OFF position.

Shutting Off Burners Only (pilot stays lit)

2. Press in control knob and turn clockwise /

Press in and turn control knob clockwise / to the PILOT position.

# MANUAL LIGHTING PROCEDURE

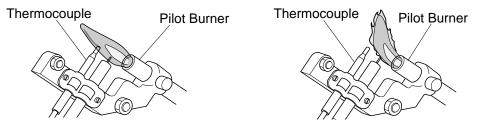
- 1. Follow steps 1 through 5 under Lighting Instructions, page 23.
- 2. Depress control knob and light pilot with match.
- 3. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob. Now follow step 8, above.

# INSPECTING BURNERS

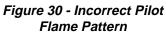
Check pilot flame pattern and burner flame patterns often.

### PILOT FLAME PATTERN

Figure 29 shows a correct pilot flame pattern. Figure 30 shows an incorrect pilot flame pattern. The incorrect pilot flame is not touching the thermocouple. This will cause the thermocouple to cool. When the thermocouple cools, the fireplace will shut down.



### Figure 29 - Correct Pilot Flame Pattern



If pilot flame pattern is incorrect, as shown in Figure 30

- turn fireplace off (see To Turn Off Gas to Appliance, page 24)
- see *Troubleshooting*, pages 26 through 30

### FRONT BURNER FLAME PATTERN

Figure 31 shows correct front burner flame pattern. Figure 32 shows incorrect front burner flame pattern. The incorrect burner flame pattern shows yellow tipping at top of blue flame.

# A WARNING

If front burner flame pattern shows yellow tipping, your fireplace could produce increased levels of carbon monoxide. Follow instructions at bottom of this page. Yellow flame on rear burner is normal.

# NOTICE

Do not mistake orange flames with yellow tipping. Dirt or other fine particles are burned by fireplace, causing brief patches of orange flame.



CORRECT FLAME PATTERN AT HIGH POSITION Figure 31 - Correct Front Burner Flame Pattern



Yellow Tipping At Top of Blue Flame



If front burner flame pattern is incorrect, as shown in Figure 32

- turn fireplace off (see To Turn Off Gas to Appliance, page 24
  - see Troubleshooting, pages 26 through 30

# CLEANING AND MAINTENANCE

# A WARNING

Turn off fireplace and let cool before cleaning.

# **A** CAUTION

You must keep control areas, burners, and circulating air passageways of fireplace clean. Inspect these areas of fireplace before each use. Have fireplace inspected yearly by a qualified service person. Fireplace may need more frequent cleaning due to excessive lint from carpeting, bedding material, etc.

### **ODS/PILOT AND BURNERS**

• Use a vacuum cleaner or small, soft bristled brush to clean.

### LOGS

- If you remove logs for cleaning, refer to *Installing Logs*, pages 20 and 21, to properly replace logs.
- Replace log(s) if broken or chipped (dime-sized or larger).

# TROUBLE-SHOOTING

*Note:* All troubleshooting items are listed in order of operation.

# 

Turn off fireplace and let cool before servicing. Only a qualified service person should service and repair fireplace.

# 

Never use a wire, needle, or similar object to clean ODS/pilot. This can damage ODS/pilot unit.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
When ignitor button is pressed, there is no	1. Ignitor electrode not con- nected to ignitor cable	1. Reconnect ignitor cable
spark at ODS/pilot	2. Piezo ignitor nut is loose	2. Tighten nut holding piezo ignitor to base panel of log set. Nut is located behind base panel.
	<ol> <li>Ignitor cable pinched or wet</li> </ol>	3. Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry
	4. Broken ignitor cable	4. Replace ignitor cable
	5. Bad piezo ignitor	5. Replace piezo ignitor
	6. Ignitor electrode broken	6. Replace ignitor
	<ol> <li>Ignitor electrode posi- tioned wrong</li> </ol>	7. Replace ignitor

TROUBLE- SHOOTING	OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Continued	When ignitor button is pressed, there is spark at ODS/pilot but no ignition	<ol> <li>Gas supply turned off or manual shutoff valve closed</li> <li>Control knob not in PILOT position</li> <li>Control knob not pressed in while in PILOT position</li> <li>Air in gas lines when installed</li> <li>ODS/pilot is clogged</li> <li>Gas regulator setting is not correct</li> </ol>	<ol> <li>Turn on gas supply or open manual shutoff valve</li> <li>Turn control knob to PILOT position</li> <li>Press in control knob while in PILOT position</li> <li>Continue holding down control knob. Repeat igniting operation until air is removed</li> <li>Clean ODS/pilot (see <i>Cleaning and Mainte- nance</i>, page 26) or replace ODS/pilot assembly</li> <li>Replace gas regulator</li> </ol>
	ODS/pilot lights but flame goes out when control knob is released	<ol> <li>Control knob not fully pressed in</li> <li>Control knob not pressed in long enough</li> <li>Safety interlock system has been triggered</li> <li>Manual shutoff valve not fully open</li> <li>Thermocouple connec- tion loose at control valve</li> <li>Pilot flame not touching thermocouple, which allows thermocouple to cool, causing pilot flame to go out. This problem could be caused by one or both of the following: A) Low gas pressure B) Dirty or partially clogged ODS/pilot</li> <li>Thermocouple damaged</li> <li>Control valve damaged</li> </ol>	<ol> <li>Press in control knob fully</li> <li>After ODS/pilot lights, keep control knob pressed in 30 seconds</li> <li>Wait one minute for safety interlock system to reset. Repeat ignition operation</li> <li>Fully open manual shut- off valve</li> <li>Hand tighten until snug, then tighten 1/4 turn more</li> <li>A) Contact local propane gas company</li> <li>B) Clean ODS/pilot (see <i>Cleaning and Mainte- nance</i>, page 26) or replace ODS/pilot assembly</li> <li>Replace thermocouple</li> <li>Replace control valve</li> </ol>
			Continued 27

	OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
SHOOTING Continued	One or both burners do not light after ODS/pilot is lit	1. Burner orifice(s) clogged	1. Clean burner(s) (see <i>Cleaning and Mainte-</i> <i>nance</i> , page 26) or
		<ol> <li>Burner orifice(s) diameter is too small</li> <li>Inlet gas pressure is too low</li> <li>Mislocated crossover tube</li> </ol>	<ul> <li>replace burner orifice(s)</li> <li>2. Replace burner orifice(s)</li> <li>3. Contact local propane gas company</li> <li>4. Contact qualified service person</li> </ul>
	Delayed ignition of one or both burners	<ol> <li>Manifold pressure is too low</li> <li>Burner orifice(s) clogged</li> </ol>	<ol> <li>Contact local propane gas company</li> <li>Clean burner(s) (see <i>Cleaning and Mainte-</i> <i>nance</i>, page 26) or replace burner orifice(s)</li> </ol>
		3. Mislocated crossover tube	<ol> <li>Contact qualified service person</li> </ol>
	Burner backfiring during combustion	1. Burner orifice is clogged or damaged	1. Clean burner (see <i>Cleaning and Mainte-</i> <i>nance</i> , page 26) or replace burner orifice
		<ol> <li>Damaged burner</li> <li>Gas regulator defective</li> </ol>	<ol> <li>Replace damaged burner</li> <li>Replace gas regulator</li> </ol>
	Yellow flame in front burner during burner combustion	1. Not enough air	1. Check burner(s) for dirt and debris. If found, clean burner(s) (see <i>Cleaning and Mainte-</i> <i>nance</i> , page 26)
		2. Gas regulator defective	2. Replace gas regulator
	Slight smoke or odor during initial opera- tion	1. Residues from manu- facturing processes and logs curing	1. Problem will stop after a few hours of operation
	Fireplace produces a whistling noise when burners are lit	<ol> <li>Turning control knob to HI position when burners are cold</li> <li>Air in gas line</li> </ol>	<ol> <li>Turn control knob to LO position and let warm up for a minute</li> <li>Operate burners until air is removed from line. Have gas line checked by local propane gas</li> </ol>
		<ol> <li>Air passageways on fireplace blocked</li> <li>Dirty or partially clogged burner orifice(s)</li> </ol>	<ul> <li>company</li> <li>3. Observe minimum installation clearances (see page 11)</li> <li>4. Clean burners (see <i>Cleaning and Mainte-</i> <i>nance</i>, page 26) or replace burner orifice(s)</li> </ul>

# **TROUBLE-**<br/>SHOOTING<br/>Continued**MARNING**If you smell gas<br/>• Shut off gas supply.<br/>• Do not try to light any appliance.<br/>• Do not touch any electrical switch; do<br/>not use any phone in your building.<br/>• Immediately call your gas supplier from<br/>a neighbor's phone. Follow the gas<br/>supplier's instructions.

• If you cannot reach your gas supplier, call the fire department.

*IMPORTANT:* Operating fireplace where impurities in air exist may create odors. Cleaning supplies, paint, paint remover, cigarette smoke, cements and glues, new carpet or textiles, etc., create fumes. These fumes may mix with combustion air and create odors. These odors will disappear over time.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Fireplace produces a clicking/ticking noise just after burners are lit or shut off	1. Metal expanding while heating or contracting while cooling	1. This is common with most fireplaces. If noise is excessive, contact qualified service person
Fireplace produces unwanted odors	1. Fireplace burning va- pors from paint, hair spray, glues, cleaners, chemicals, new carpet, etc. (See <i>IMPORTANT</i> statement above)	<ol> <li>Open window and ventilate room. Stop using odor causing products while fireplace is running</li> </ol>
	<ol> <li>Gas leak. See Warn- ing statement at top of page</li> </ol>	2. Locate and correct all leaks (see <i>Checking Gas</i> <i>Connections</i> , page 18)
Fireplace shuts off in use (ODS operates)	<ol> <li>Not enough fresh air is available</li> <li>Low line pressure</li> <li>ODS/pilot is partially clogged</li> </ol>	<ol> <li>Open window and/or door for ventilation</li> <li>Contact local propane gas company</li> <li>Clean ODS/pilot (see <i>Cleaning and Mainte-</i> <i>nance</i>, page 26)</li> </ol>
Gas odor even when control knob is in OFF position	<ol> <li>Gas leak. See Warn- ing statement at top of page</li> <li>Control valve defective</li> </ol>	<ol> <li>Locate and correct all leaks (see <i>Checking Gas</i> <i>Connections</i>, page 18)</li> <li>Replace control valve</li> </ol>

Continued

TROUBLE- SHOOTING	OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Continued	Gas odor during combustion	<ol> <li>Foreign matter be- tween control valve and burner</li> <li>Gas leak. See Warn- ing statement at top of page 29</li> </ol>	<ol> <li>Take apart gas tubing and remove foreign matter</li> <li>Locate and correct all leaks (see <i>Checking Gas</i> <i>Connections</i>, page 18)</li> </ol>
	Moisture/condensation noticed on windows	1. Not enough combus- tion/ventilation air	1. Refer to <i>Air for Combustion and Ventilation</i> requirements (page 6)
TECHNICAL SERVICE	-	uestions about installation, opernational's Technical Service 20-337-2564).	÷
SERVICE HINTS	<ul> <li>When gas pressure is too low</li> <li>pilot will not stay lit</li> <li>burners will have delayed ignition</li> <li>fireplace will not produce specified heat</li> <li>propane gas supply may be low</li> <li>When gas quality is bad</li> <li>pilot will not stay lit</li> <li>burners will produce flames and soot</li> <li>fireplace will backfire when lit</li> </ul>		
	You may feel your gas p local propane gas suppli	pressure is too low or gas quali er.	ity is bad. If so, contact your
_			

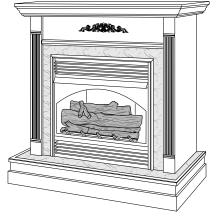
REPLACEMENT PARTS	age for parts replaced under warranty <b>Parts Under Warranty</b> Contact authorized dealers of this pripart(s), call DESA International's Tell-800-DESA LOG (1-800-337-2564) When calling DESA International, height of your name • your address • model number of your fireplace • how fireplace was malfunctioning • type of gas used (propane or nather • purchase date Usually, we will ask you to return the <b>Parts Not Under Warranty</b> Contact authorized dealers of this pripart(s), call DESA International's Partion. When calling DESA International, height of your fireplace • the replacement part number	oduct. If they can't supply original replacement echnical Service Department at 4). ave ready ng tural gas) the defective part to the factory. oduct. If they can't supply original replacement arts Department at 1-800-972-7879 for informa- ave ready
SPECIFICATIONS	Btu (Low/High)	10,000/28,000
	Type Gas	Propane Gas Only
	Ignition	Piezo
	Pressure Regulator Setting	8" W.C.
	Inlet Gas Pressure (in. of water)	
	Maximum Minimum	14" 11"
	Shipping Weight	92 lbs.
		31

# **ACCESSORIES**

Purchase these fireplace accessories from your local dealer. If they can not supply these accessories, call DESA International's Sales Department at 1-800-432-2382 for information. You can also write to the address listed on the back page of this manual.

### CABINET MANTEL **GM100F - Walnut Finished** GM101U - Unfinished

Shown with optional base and laminate hearth and mantel trim accessories. Dimensions (WxHxD): 56-7/8" x 48-3/4" x 20-7/8"



### **FACE MANTEL GM400F - Walnut Finished** GM401U - Unfinished Shown with optional slim base.

Dimensions (WxHxD): 56-3/4" x 48-3/4" x 7"

### HARDWOOD HEARTH BASE G3000F- Walnut Finished G3001U - Unfinished

riser for the fireplace (cannot be used with corner mantel or face mantel). Dimensions (WxHxD): 58-1/8" x 6-1/ 8" x 28-1/2"

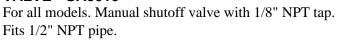
# The hearth base creates a handsome

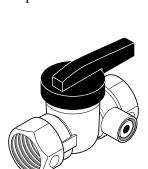
### **SLIM HEARTH BASE** G3005J - Jade Marble Laminate G3005S - Sandstone Marble Laminate

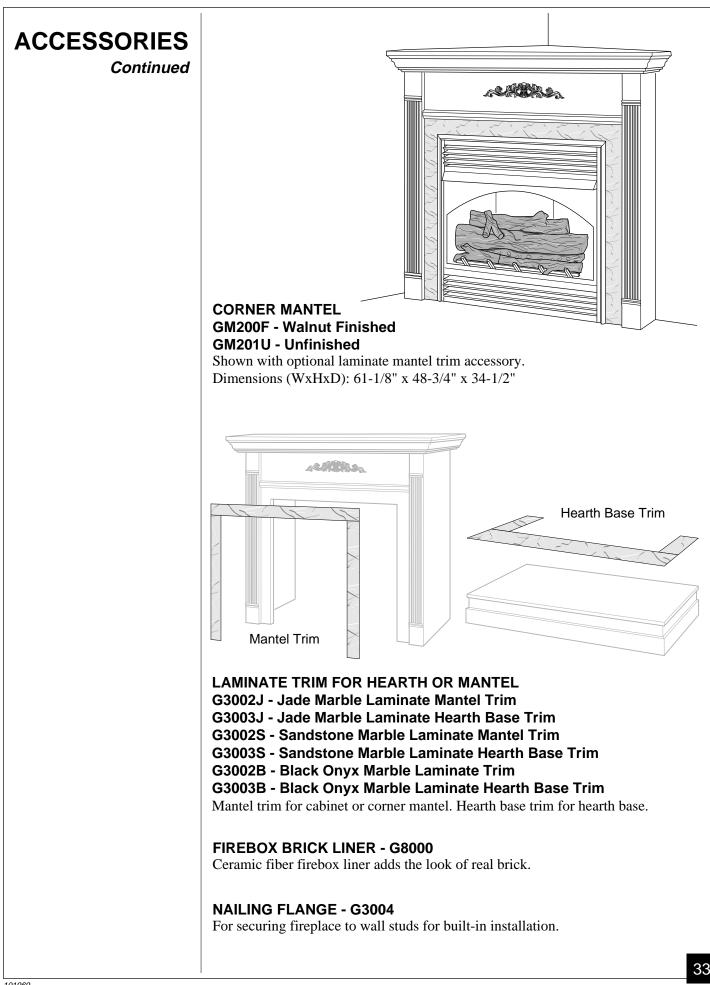
G3005B - Black Onyx Marble Laminate

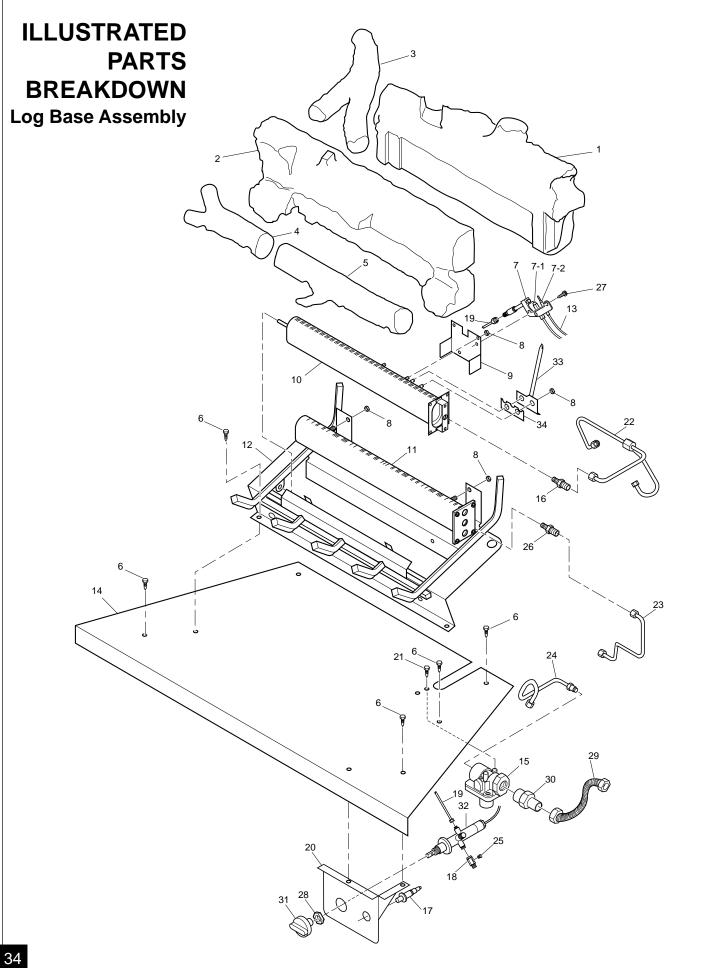
The slim hearth base allows you to further customize your fireplace. Dimensions (WxHxD): 41-7/8" x 5/8" x 10"

# **MANUAL SHUTOFF VALVE - GA5010**





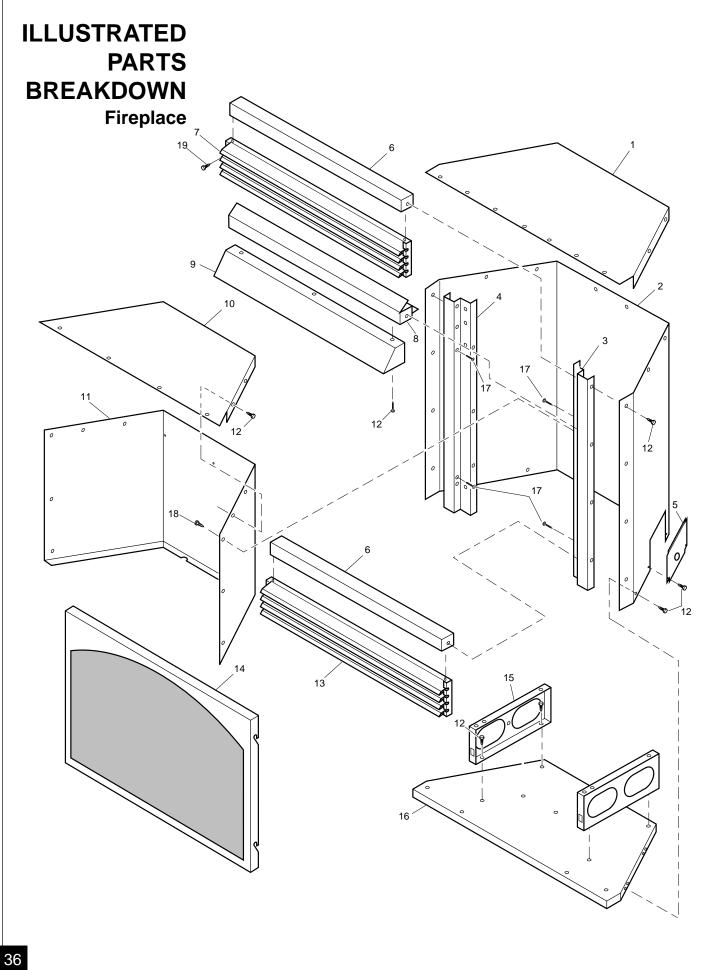




# PARTS LIST Log Base Assembly

This list contains replaceable parts used in your fireplace. When ordering parts, follow the instructions listed under *Replacement Parts* on page 31 of this manual.

KEY				
NO.	PART NUMBER	DESCRIPTION	QTY.	
1	101337-02	Rear Log (#1)	1	
2	101336-02	Front Log (#2)	1	
3	101335-01	Crossover Log (#3)	1	
4	101332-01	Left Front Branch (#4)	1	
5	101333-01	Right Front Branch (#5)	1	
6	098304-01	Screw, #10 Phillips, Black	8	
7	099059-02	O.D.S. Pilot	1	
7-1	098594-01	Ignitor	1	
7-2	098593-01	Thermocouple	1	
8	098249-01	Nut	6	
9	101006-01	Pilot Bracket	1	
10	100998-02	Front Burner	1	
11	100999-02	Rear Burner Assembly	1	
12	102256-04BR	Base Assembly	1	
13	098271-06	Ignitor Cable	1	
14	101924-01CB	Firebox Bottom	1	
15	098867-10	Gas Regulator	1	
16	101004-01	Front Burner Injector	1	
17	097159-02	Piezo Ignitor	1	
18	101003-02	Pressure Tap Fitting	1	
19	099387-05	Pilot Tube	1	
20	102288-01CB	Valve and Piezo Bracket	1	
21	M11084-38	Regulator Hex Screw	2	
22	101974-01	Front Burner Tube	1	
23	101975-01	Rear Burner Tube	1	
24	101973-01	Inlet Tube	1	
25	098276-01	1/8" Plug	1	
26	101004-10	Rear Burner Injector	1	
27	M11084-26	Hex Screw, #10	2	
28	098508-01	Valve Retainer Nut	1	
29	101628-01	Flex Hose	1	
30	097809-02	Adapter	1	
31	098354-01	Control Knob	1	
32	098932-07	Control Valve	1	
33	101007-01	Crossover Tube	1	
34	101008-01	Gasket	1	
PARTS AVAILABLE — NOT SHOWN				
	099564-209	AGA Info Decal	1	
	100563-01	Warning Plate	1	
	101055-01	Lighting Instructions Plate	1	
	100565-01	Bead Chain	1	
	101416-09	Information Video	1	
	101976-01	Control Position Decal	1	
		1		



# PARTS LIST Fireplace

This list contains replaceable parts used in your fireplace. When ordering parts, follow the instructions listed under *Replacement Parts* on page 31 of this manual.

KEY				
NO.	PART NUMBER	DESCRIPTION	QTY.	
1	101357-01	Top Outer Casing	1	
2	101373-01	Outer Casing	1	
3	101923-01CB	Right Front Side	1	
4	101922-01CB	Left Front Side	1	
5	101368-01	Access Door	2	
6	101352-01CB	Top Front	2	
7	101203-01	Top Louver Assembly	1	
8	101354-01CB	Middle Front	1	
9	101712-01	Firebox Hood	1	
10	101872-03	Firebox Top	1	
11	101375-04BR	Firebox Wrapper	1	
12	M11084-26	Hex Screw, #10	76	
13	101387-01	Lower Louver Assembly	1	
14	101727-01	Screen Assembly	1	
15	101348-01	Firebox Support	2	
16	101347-01CB	Outer Base	1	
17	099230-01	Shoulder Screw	4	
18	098304-01	Phillips Pan Head Screw, #10	9	
19	098304-03	Phillips Pan Head Screw, #8	4	
PARTS AVAILABLE — NOT SHOWN				
	101407-01	Brass Trim Kit	1	
	101785-01	Brass Trim Hardware	1	
	099038-01	Strain Relief Bushing	1	
	100639-01	Caution Decal	1	

NOTES	
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38	

NOTES	
	20

# WARRANTY INFORMATION

**KEEP THIS WARRANTY** 

Model	
Serial No	
Date Purchased	

Always specify model and serial numbers when communicating with the factory.

We reserve the right to amend these specifications at any time without notice. The only warranty applicable is our standard written warranty. We make no other warranty, expressed or implied.

### LIMITED WARRANTY VENT-FREE PROPANE GAS FIREPLACE

DESA International warrants this product to be free from defects in materials and components for two (2) years from the date of first purchase, provided that the product has been properly installed, operated and maintained in accordance with all applicable instructions. To make a claim under this warranty the Bill of Sale or cancelled check must be presented.

This warranty is extended only to the original retail purchaser. This warranty covers the cost of part(s) required to restore this heater to proper operating condition and an allowance for labor when provided by a DESA Authorized Service Center. Warranty part(s) MUST be obtained through authorized dealers of this product and/or DESA International who will provide original factory replacement parts. Failure to use original factory replacement parts voids this warranty. The heater MUST be installed by a qualified installer in accordance with all local codes and instructions furnished with the unit.

This warranty does not apply to parts that are not in original condition because of normal wear and tear, or parts that fail or become damaged as a result of misuse, accidents, lack of proper maintenance or defects caused by improper installation. Travel, diagnostic cost, labor, transportation and any and all such other costs related to repairing a defective heater will be the responsibility of the owner.

TO THE FULL EXTENT ALLOWED BY THE LAW OF THE JURISDICTION THAT GOVERNS THE SALE OF THE PRODUCT; THIS EXPRESS WARRANTY EXCLUDES ANY AND ALL OTHER EXPRESSED WARRANTIES AND LIMITS THE DURATION OF ANY AND ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO TWO (2) YEARS FROM THE DATE OF FIRST PURCHASE; AND DESA INTERNATIONAL'S LIABILITY IS HEREBY LIMITED TO THE PURCHASE PRICE OF THE PRODUCT AND DESA INTERNATIONAL SHALL NOT BE LIABLE FOR ANY OTHER DAMAGES WHATSOEVER INCLUDING INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow a limitation on how long an implied warranty lasts or an exclusion or limitation of incidental or consequential damages, so the above limitation on implied warranties, or exclusion or limitation on damages may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

For information about this warranty write:



101969-01 Rev. B 5/95